

## ABSTRACT

A lithographic apparatus is disclosed. The apparatus includes an illumination system that provides a beam of radiation, and a support structure that supports a patterning structure. The patterning structure is configured to impart the beam of radiation with a pattern in its cross-section. The apparatus also includes a substrate support that supports a substrate, a projection system that projects the patterned beam onto a target portion of the substrate, and a reference frame that provides a reference surface with respect to which a position of at least one of the substrate and the patterning structure is measured. The reference frame includes a material that has a coefficient of thermal expansion of greater than about  $2.9 \times 10^{-6}/K$ .